SOCIETY MEETING OF APRIL 26, 1995

BUTTERFLIES AT VALLEY FORGE NATIONAL PARK

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Protected "natural" environments are not static, but subject to many changes, including from weather, human impact, disease and pests, and natural succession. Along with the present forces, we often forget that these same areas may have faced great impacts in the past, particularly when the evidence of these past forces is gone or concealed by the present landscape. This combination of present and past uses of the land, in light of a survey of butterfly biodiversity, was presented in a wonderful, beautifully illustrated talk by Jane Ruffin to the Society membership at the last meeting of the 1994-1995 schedule. Ms. Ruffin is an amateur lepidopterist and widely published nature photographer, who has authored the recent "Where are the Butterfly Gardens?" (available from The Lepidopterist Society).

Valley Forge National Historical Park comprises about 3500 acres set along the Schuylkill River at the edge of Philadelphia, with a topography of valleys to low hills between 100-500 ft. in elevation. Although many historical buildings are in evidence, much of the land is vegetated, with a mixture of woodland, park, rough lawn and managed meadow, and diverse wetlands such as the Schuylkill, Valley Creek, marshes and springs. Jane started her survey of the butterfly fauna last year, following the completion by botanists of a comprehensive vegetation survey. Jane spoke about the past uses of the land, and as anyone could guess from realizing George Washington's troops were encamped here, the uses predate the Revolutionary War period. Industries included the forges which gave the area its name, extensive wood cutting, a rock quarry, small gauge railroad, a root beer company, and farming. Land use is changing within the park even today, as the foresight of park stewards have converted many of the 1100 acres in rough lawn to wildflower meadows. Recent suburban development encircling the park has brought challenges including high deer populations, and great numbers of walkers, joggers, bicyclists and horse riders. The deer are a real concern, as they are eating nearly all of the understory vegetation in the woodlands, with subsequent decline in diversity of the plants and the animals they support.

But the butterflies took center stage in this talk and in the photographic slides. In the beginning of the second year of the survey, Jane has already enumerated 50 species, from the earliest species, the spring azure, many common species such as viceroys and buckeyes to the rarely seen striped and hickory hairstreaks. The meadow conversion has been a boon to the butterflies and other insects, increasing numbers and diversity by providing nectar and breeding resources. Another favorite place is a vernal pond created about 12 years ago by removing old coal dust from along the river, and which last year supported an abundant population of the damselfly *Lestes rectangularis*, along with diverse flowers and butterflies. Skippers proved a large part of the park fauna, with 20 species found already including several duskywing species. A wonderful slide which amazed the crowd showed an enormous tiger swallowtail captured by a very small crab spider on goldenrod.

Along with the presentation of the Calvert Award, there were some items of entomological interest, several even relating to the insect topic of the evening. The Academy of Natural Sciences' exhibit, *Butterflies Live & In Color!*, was open for viewing by the membership before the meeting. Esteban Gutierrez, a visiting cockroach specialist from Havana, Cuba was introduced to the audience. Jon Gelhaus noted that Dan Otte and Tommy Allen were off collecting in southern Africa, Otte after Orthoptera, Allen after apterygotes. Harold White noted that falcate orange tip butterflies were common this year, and Dale Schweitzer noted the same for henry's elfin; Schweitzer also noted that the orange tip can remain as pupae through an unfavorable year. Howard Boyd showed slides of scarab larvae and pupal chambers which he collected in shredded wood and decaying leaves of a squirrel nesting box hung on a tree. He asked for help on tips for rearing the larvae successfully, particularly the pre-pupal larvae in the brown, egg-like pupal chambers. Nearly 50 members and visitors were present.

Jon Gelhaus,
Vice President